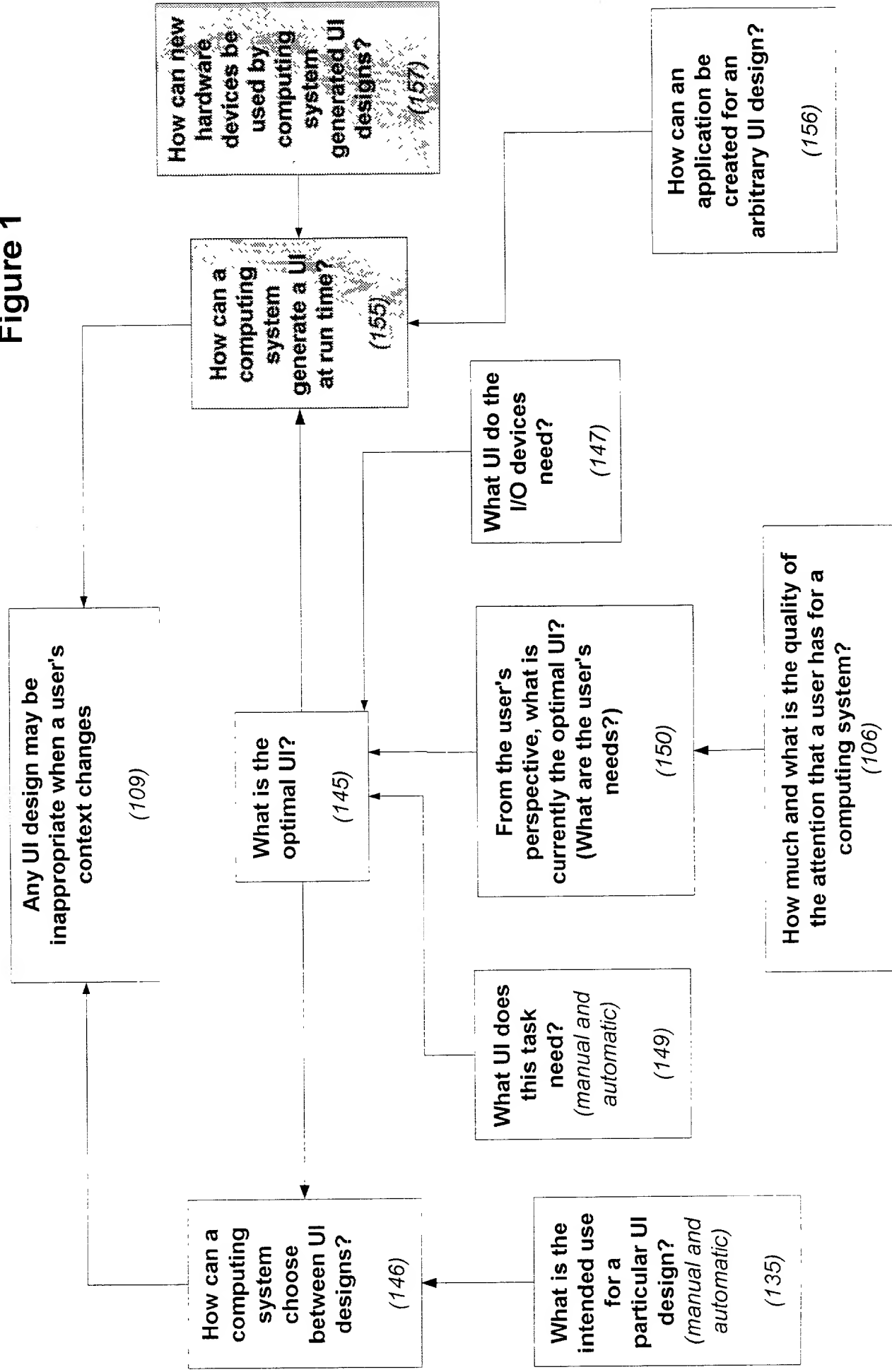


Figure 1



computing device 200

memory 230

Task characterizer 241

User characterizer 242

Computing system characterizer 243

Other Accessible computing Systems Characterizer 244

Available UI Designs Characterizer 245

Optimal UI Determiner 246

Existing UI Selector 247

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UI Applicator 249

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display 211

network connection 212

computer-readable media drive 213

Other I/O devices 214

Storage 220

UI building block elements 221

current context information 222

current characterization information 223

250

computing device

Fig. 2

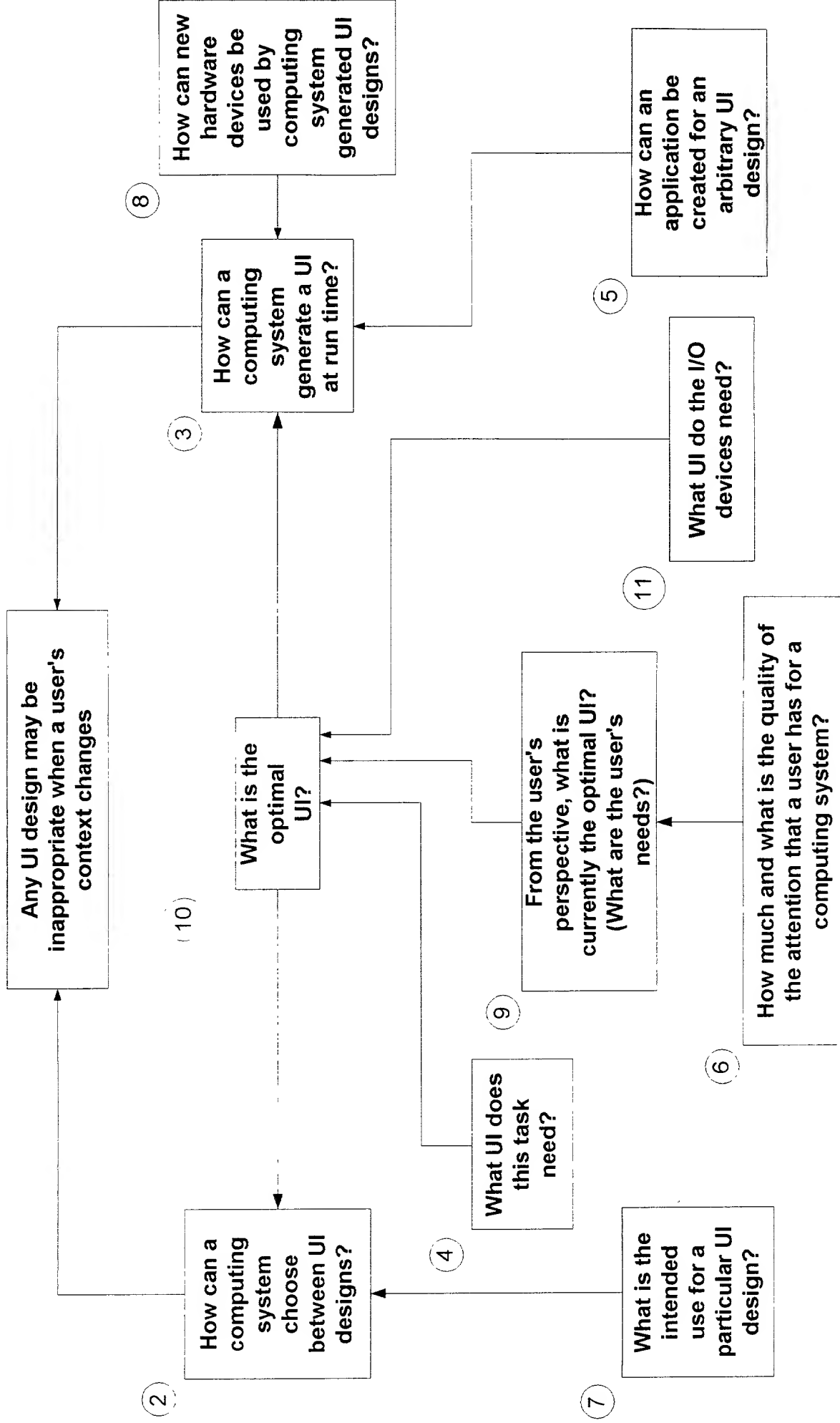


Figure 3

# Optimal UI Requirements

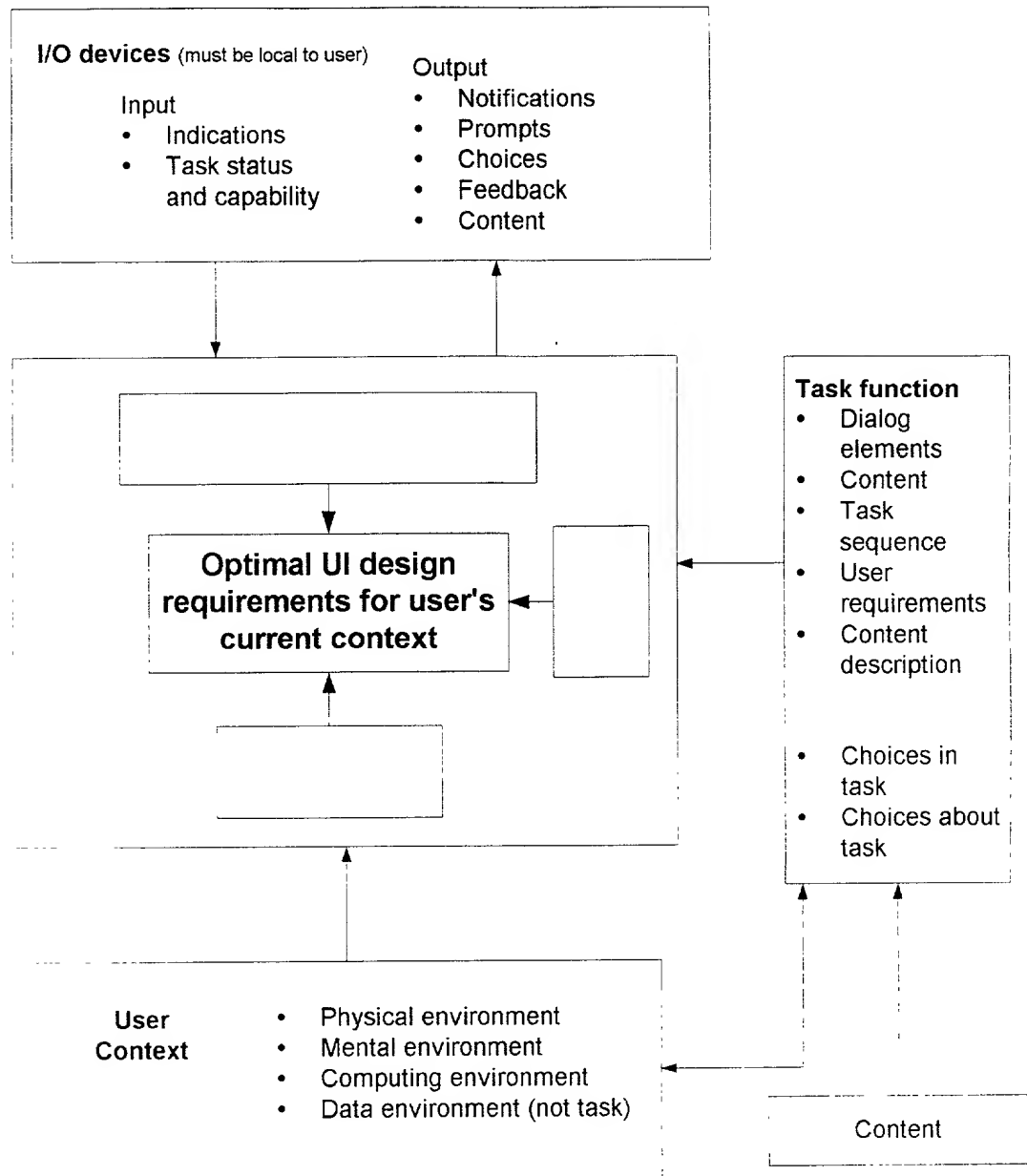


Figure 4

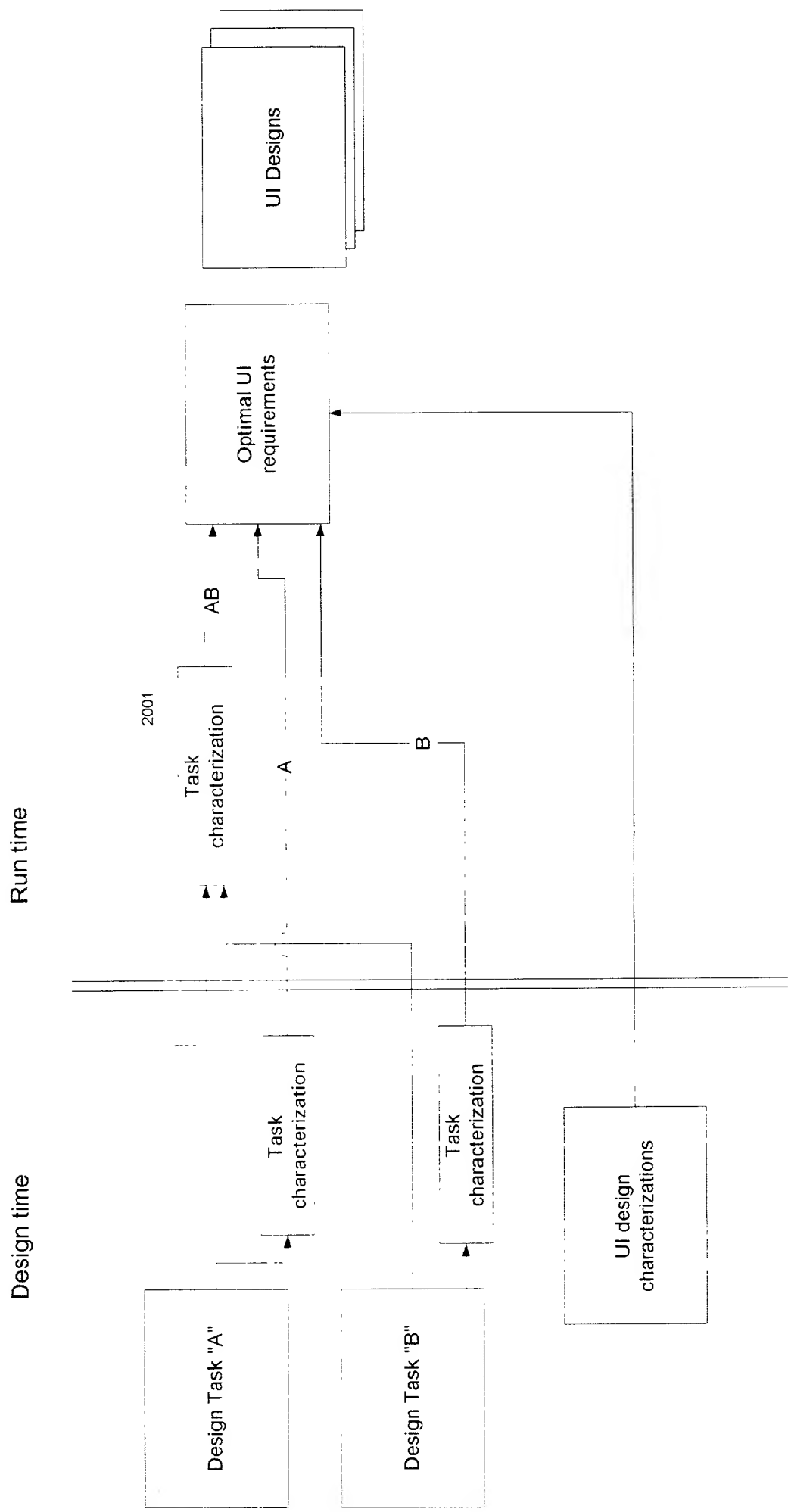


Figure 5

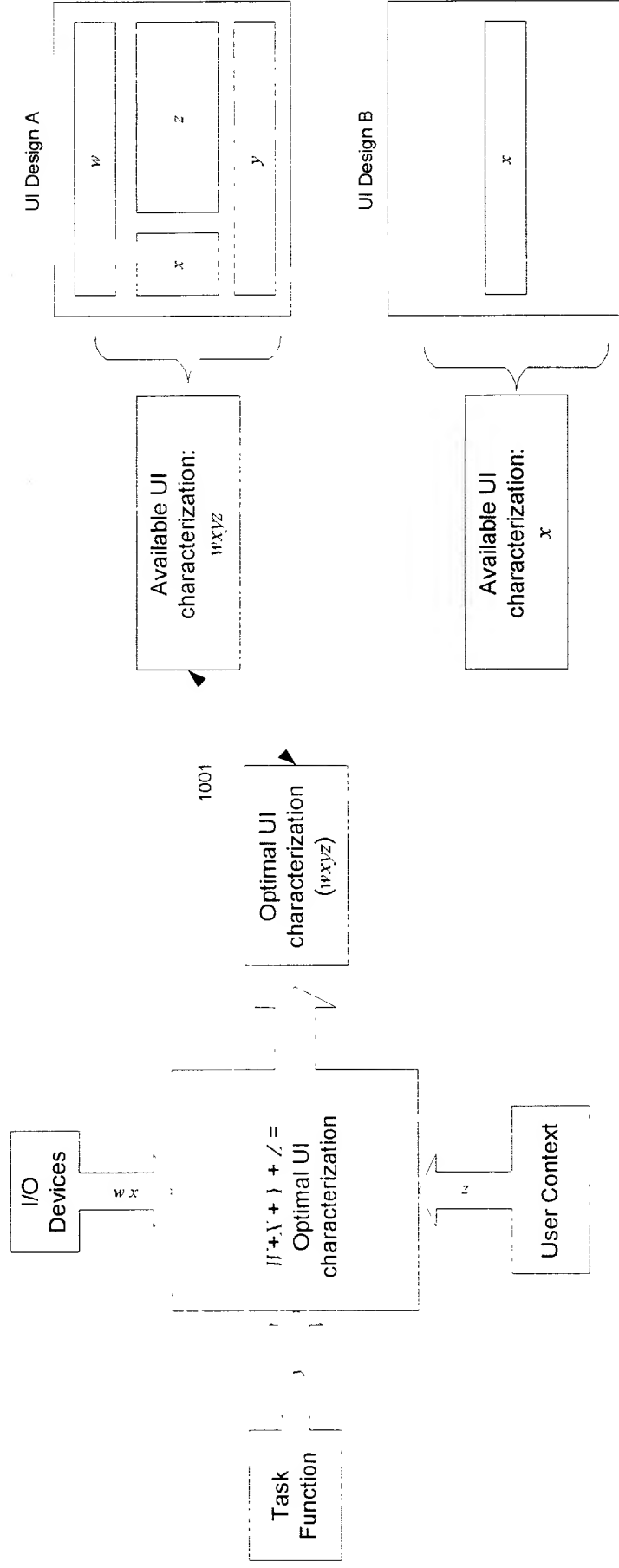


Figure 6

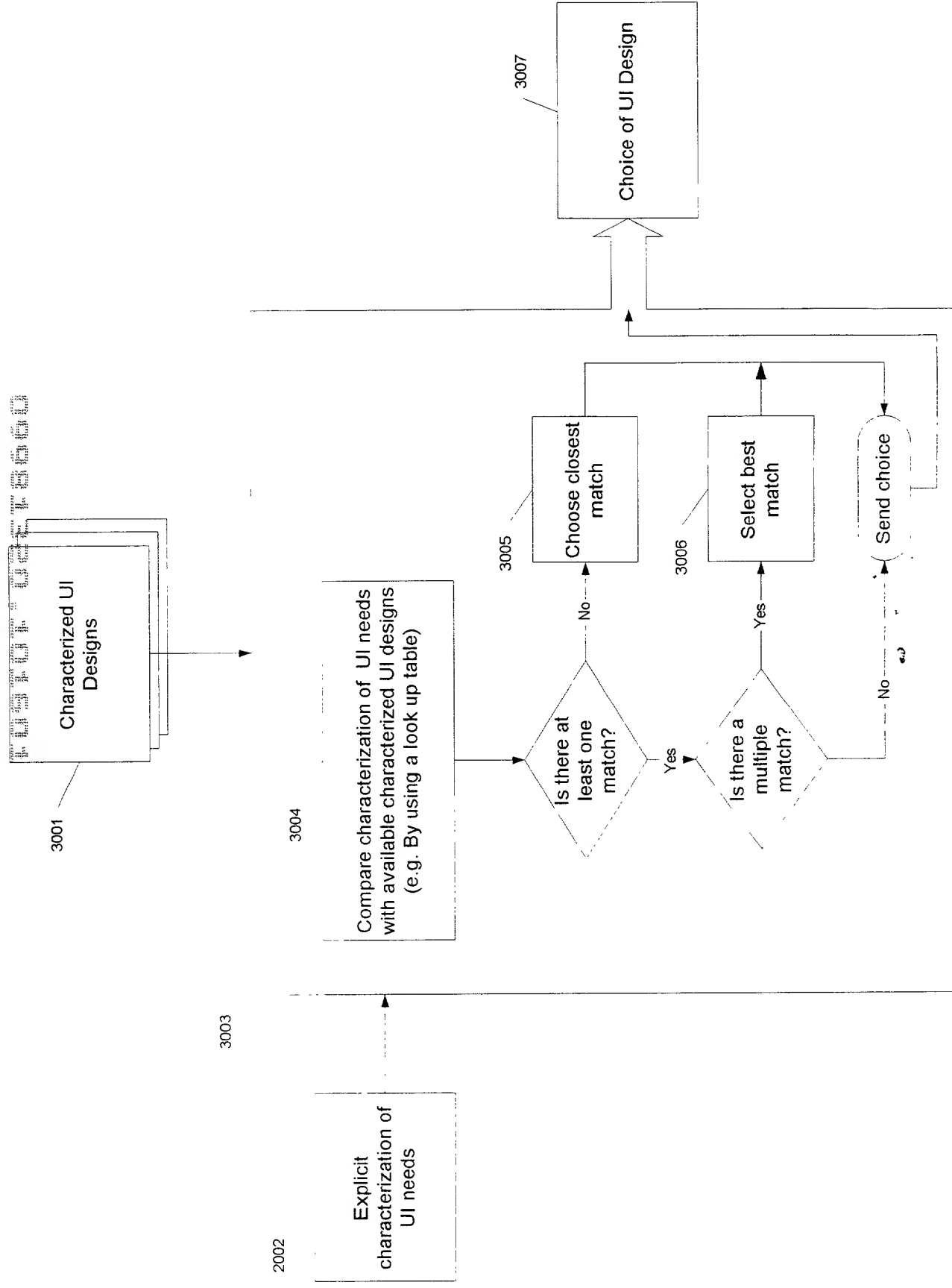


Figure 7

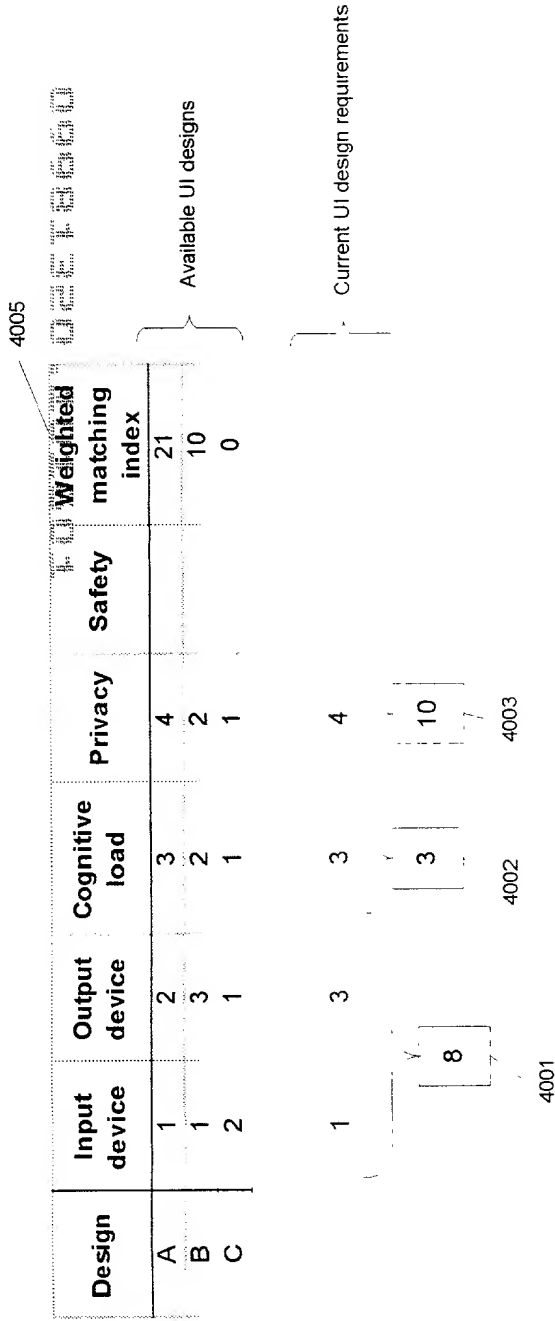


Figure 8



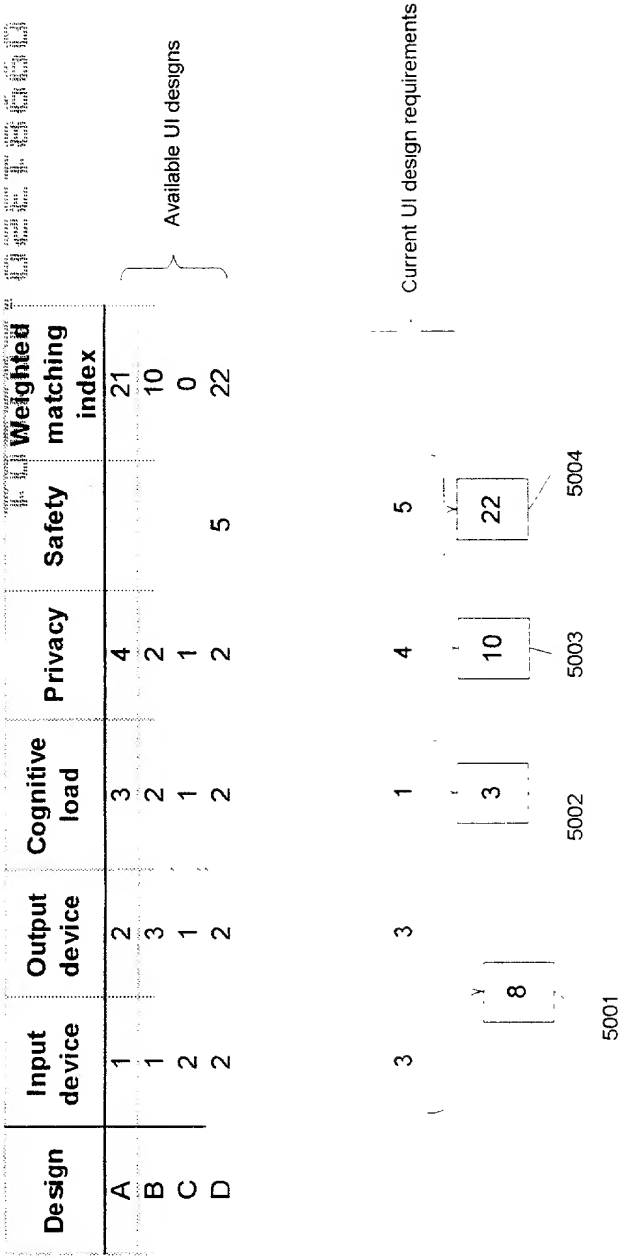


Figure 9

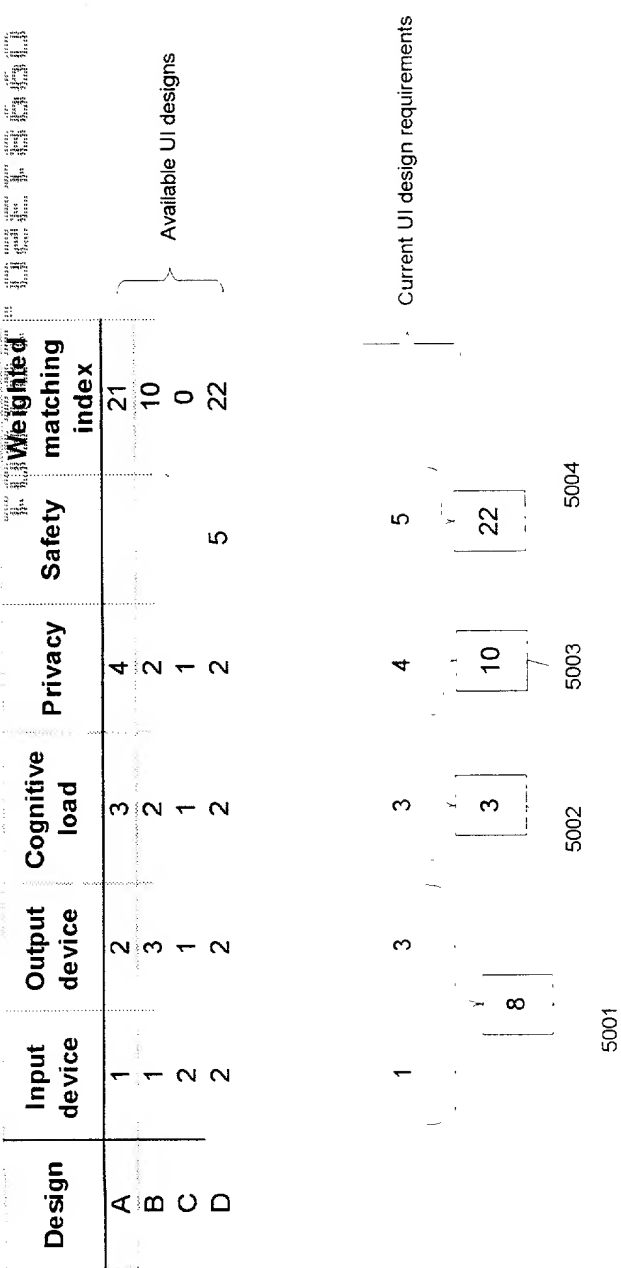


Figure 10

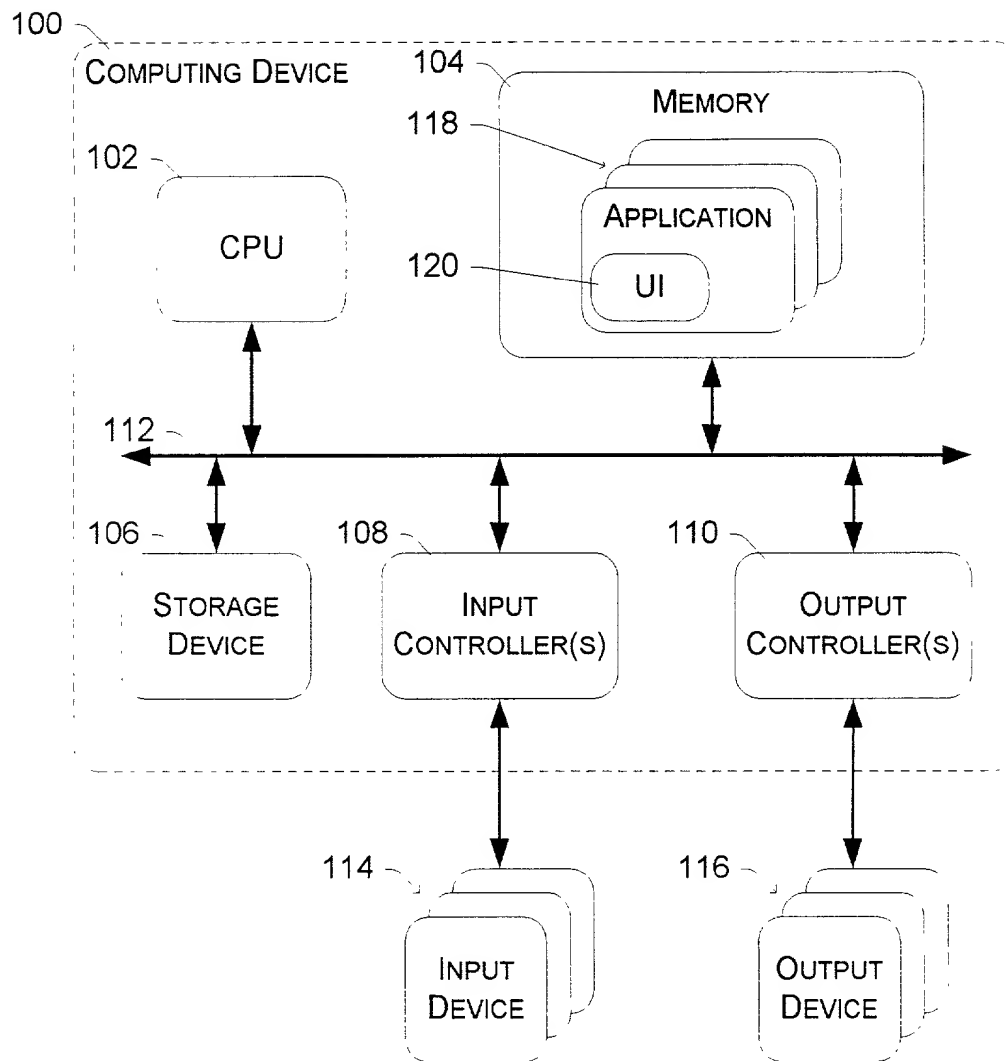


Fig. 11

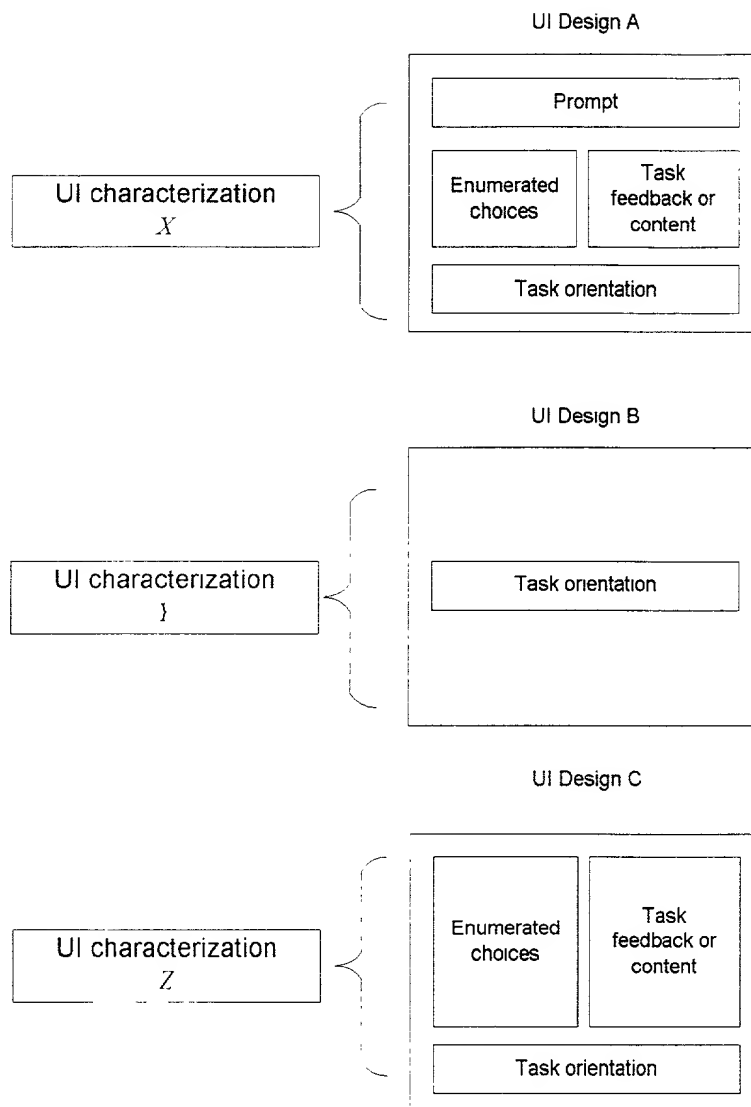


Fig. 12

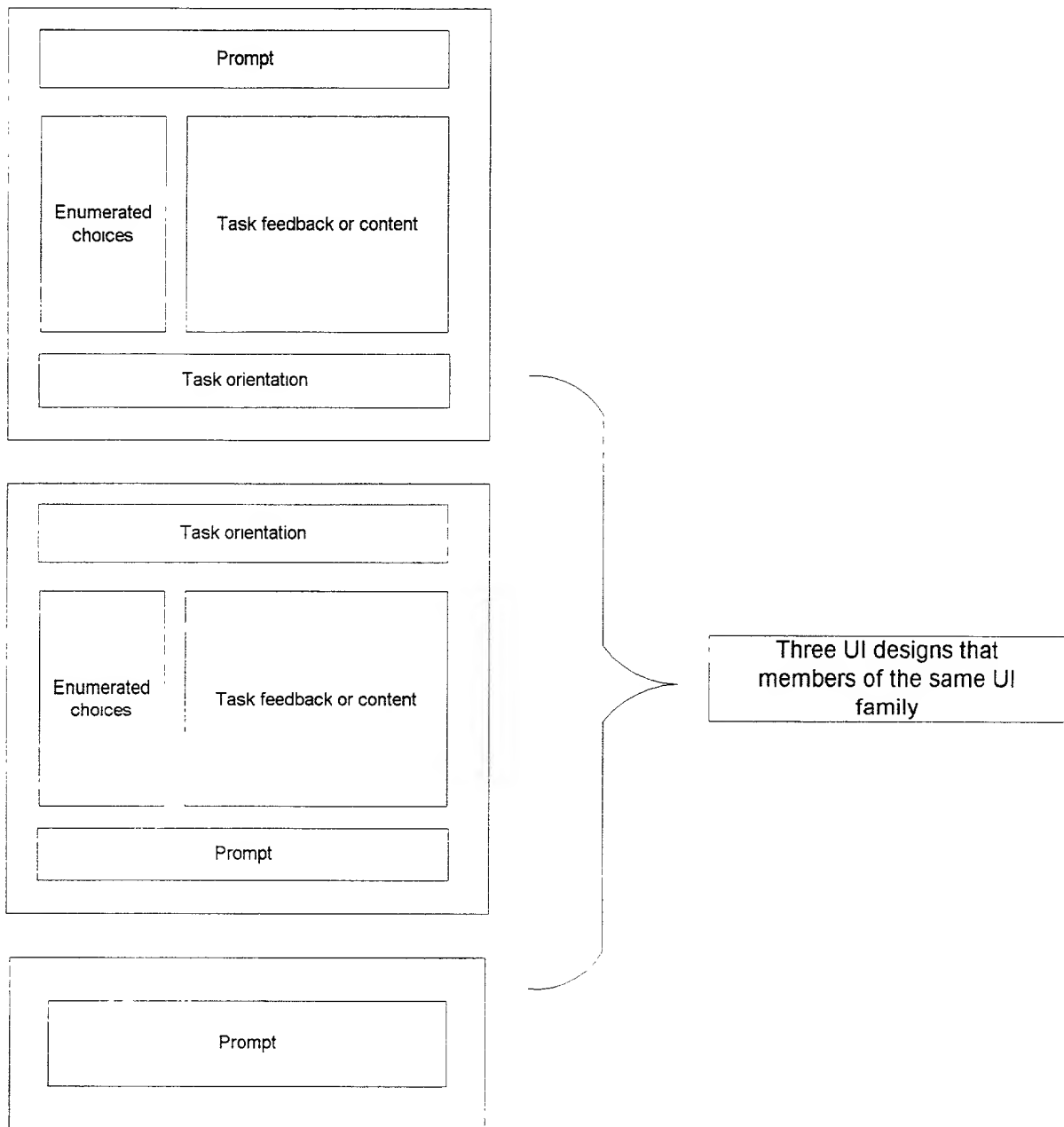


Fig. 13

# Basic Structure

## PROMPT(S)

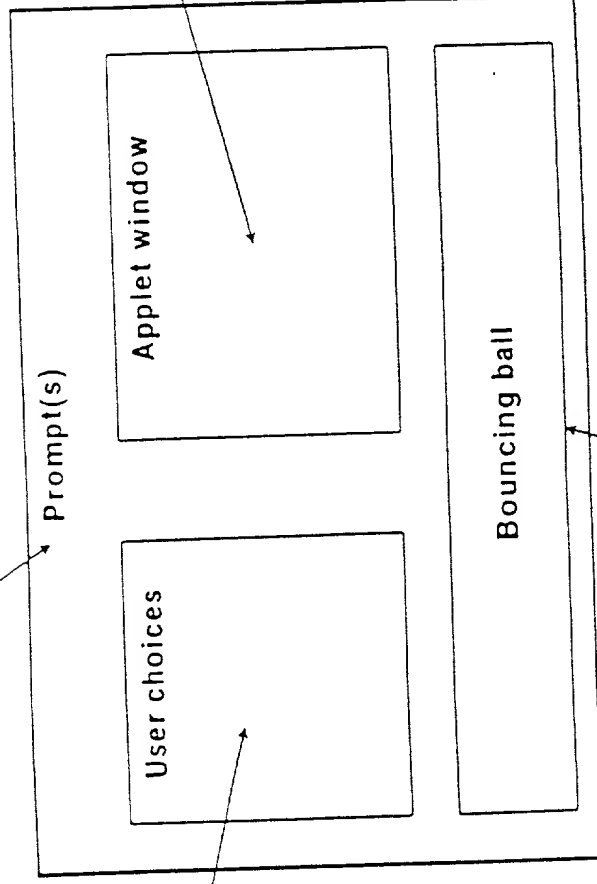
**Purpose** The goal plus task. Provide minimal user guidance about what to do next at each step (state) of the Applet. Can be audio, video, LCD, etc.

**Format** Under UIF's sole control for look, feel, and interaction. Content of the prompt(s) is provided by the Applet. How the prompt is presented (what combo of audio, video, LCD, etc.) is ultimately derived from the CM.

## USER CHOICES

**Purpose** Provide options for user to choose from to complete each step (state) of the Applet.

**Format** Under UIF's sole control for look, feel, and interaction. Choices in the list are received from the Applet. How the choices are presented (e.g., verbally, visually, etc.) is ultimately derived from the CM.



## APPLET WINDOW

**Purpose** To clarify or amplify the meaning of a choice or state.

**Format** Currently specified by Applet for control for look, feel, and content; ultimately to be under UIF's sole control for look, feel, and content as specified by Applet.

## BOUNCING BALL

**Purpose** Present all states (steps) of an Applet at once as a "cheat sheet" of what to do or expect next. For those familiar with the Applet, the bouncing ball guides the user through the Applet at a very high level, with a minimum of prompting.

**Format** Under UIF's sole control for look, feel, and interaction. Content of the state label(s) is provided by the Applet. How the states are presented is ultimately derived from the CM.

## Key

UIF User Interface Framework

CM Characterization Module

Applet Any software developed to run within the Tangis (Product) environment

Fig. 14